

Vol. 78 No. 2, 2022 ISSN: 0032-423X E-I

E-ISSN:0032-6356

Florence, Italy
International Journal of Sciences and Research

DOI: https://doi.org/10.5281/zenodo.6789326

AN EFFECTIVE ERGONOMIC PROGRAMME TO IMPROVE PERFORMANCE IN THE PACKAGING INDUSTRY

*Mendon Dewa

Durban University of Technology Department of Industrial Engineering South Africa mendond@dut.ac.za ORCID: 0000-0002-0061-3654 * Corresponding author

Kemlall Ramdass

University of South Africa
Department of Mechanical and Industrial
Engineering
Florida Campus Roodepoort
South Africa
ramdakr@unisa.ac.za
ORCID: 0000-0001-5480-3368

Riashna Roopnarain

Durban University of Technology South Africa riashna.r@gmail.com

ABSTRACT

The packaging industry in South Africa is devoid of effective ergonomic programmes due to poor implementation thereby leading to failure to yield realisable benefits for the implementing firms. The study aims to develop an effective SEP that focuses on improving the firm's overall performance through synchronisation of the ergonomic programmes with the firm's business strategy. A quantitative research methodology with a questionnaire as the research instrument was adopted for this study. A quantitative research methodology was adopted to elicit information from the employees at a liquid packaging company in South Africa. A sample of 70 employees from engineering and production departments was used. The research findings demonstrated that several factors hindered the effective implementation of ergonomics in the packaging industry, and these include awareness in the subject of ergonomics, job task design, human-computer interaction, disconnection between organisational strategies and employees, as well as poor implementation of physiological and anthropometric factors. An effective ergonomic programme that incorporated systems engineering risk assessment methodology, was developed, embracing a probability of occurrence matrix, ratings of criticality and rating of consequences. It was recommended that the organisation should train the employees on ergonomics best practices to create an effective programme that will eliminate operational gaps and lead to enhanced organisational performance.

Keywords: Scientific ergonomic programme; Ergonomic Factors; Risk Assessment.